THE UNITED STATES AIR FORCE AIMS TO BE FUELED BY INNOVATION, BUT
IS IT DEVELOPING LEADERS WHO CAN HIT THAT TARGET?

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE
General Studies

by

JUSTIN B. RADFORD, MAJOR, USAF
B.S., University of Nevada, Las Vegas, Las Vegas, Nevada, 2000
M.B.A., Touro University International, New York City, New York, 2006

Fort Leavenworth, Kansas
2014-01

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

1. REPORT DATE *(DD-MM-YYYY)* 13-06-2014	2. REPORT TYPE Master's Thesis	3. DATES COVERED *(From - To)* AUG 2013 – JUNE 2014

4. TITLE AND SUBTITLE The United States Air Force Aims to be Fueled by Innovation, but is it Developing Leaders Who Can Hit That Target?	5a. CONTRACT NUMBER
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S) Major Justin B. Radford	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, KS 66027-2301	8. PERFORMING ORG REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION / AVAILABILITY STATEMENT
Approved for Public Release; Distribution is Unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT
In January of 2013, the Air Force released an updated vision statement titled "The World's Greatest Air Force Powered by Airmen, Fueled by Innovation" which acknowledges the importance of innovation and demands the development of leaders at all levels that are capable of fostering and guiding creative organizations. The Air Force leader development model is centered on eight institutional competencies which are developed through education, training and experience over the course of one's career. The purpose of this thesis is to determine if the current leadership competencies prescribed in the Air Force Institutional Competency List support the Air Force's updated vision by developing leaders who can create an environment which encourages creative thinking. This determination was made through answering the following questions: (1) What are the key aspects of a creative organization and (2) what leadership competencies are necessary to lead a creative organization? The results of the research were then compared against the current competencies through a gap analysis in order to determine the sufficiency of the current competencies

15. SUBJECT TERMS
United States Air Force; Leadership Competencies, Doctrine, Innovation

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT (U)	b. ABSTRACT (U)	c. THIS PAGE (U)	(U)	79	19b. PHONE NUMBER *(include area code)*

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std. Z39.18

MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE

Name of Candidate: Major Justin B. Radford

Thesis Title: The United States Air Force Aims to be Fueled by Innovation, but is it
Developing Leaders Who Can Hit That Target?

Approved by:

_____ , Thesis Committee Chair
Matthew J. Bonnot, M.A.

_____ , Member
Ted A. Thomas, Ph.D.

_____ , Member
LTC Freida M. Oakley, M.S.

Accepted this 13th day of June 2014 by:

_____ , Director, Graduate Degree Programs
Robert F. Baumann, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not
necessarily represent the views of the U.S. Army Command and General Staff College or
any other governmental agency. (References to this study should include the foregoing
statement.)

ABSTRACT

THE UNITED STATES AIR FORCE AIMS TO BE FUELED BY INNOVATION, BUT IS IT DEVELOPING LEADERS WHO CAN HIT THAT TARGET?, by Major Justin B. Radford, 79 pages.

In January of 2013, the Air Force released an updated vision statement titled "The World's Greatest Air Force Powered by Airmen, Fueled by Innovation" which acknowledges the importance of innovation and demands the development of leaders at all levels that are capable of fostering and guiding creative organizations. The Air Force leader development model is centered on eight institutional competencies which are developed through education, training and experience over the course of one's career. The purpose of this thesis is to determine if the current leadership competencies prescribed in the Air Force Institutional Competency List support the Air Force's updated vision by developing leaders who can create an environment which encourages creative thinking. This determination was made through answering the following questions: (1) What are the key aspects of a creative organization and (2) what leadership competencies are necessary to lead a creative organization? The results of the research were then compared against the current competencies through a gap analysis in order to determine the sufficiency of the current competencies.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

ACRONYMS

AFDD   Air Force Doctrine Document

ICL   Institutional Competency List

LMX   Leader-Member Exchange Theory

TABLES

CHAPTER 1

INTRODUCTION

The story of the Air Force is a story of innovation. Airmen, using their unique perspective, have long stood for and pioneered innovative ways to win the fight while shaping the future. Airmen characteristically view security challenges differently—globally, without boundaries. Whereas pre-Kitty Hawk warriors relied on breaking through fortified lines on the ground, Airmen have always sought to go over, not through, those fortifications, to achieve victory.

— Department of the Air Force 2013

In January of 2013, the Air Force released an updated vision statement titled "The World's Greatest Air Force Powered by Airmen, Fueled by Innovation." According to General Welsh, the Air Force Chief of Staff, the intent of the updated vision statement is to "capture what today's Air Force is all about, as well as to kind of point out the areas that we think we should be focused on in the future" (Department of Defense 2013). The new vision focuses on three main areas: Airmen, mission, and innovation. General Welsh believes that success in the future will require "innovative thinking and different approaches to problems" (Garamone 2012). As such, the new vision acknowledges and places a strong emphasis on innovation. "Today's complex security and fiscal challenges demand that our Air Force develop innovative Airmen who find better and smarter ways to fly, fight, and win" (Air Force 2013f, 2). The new vision calls for "bold leaders at every level who encourage innovation, embrace new thinking, and take prudent risks to achieve mission success" (Air Force 2013f, 4). Additionally, the vision challenges every Airman to constantly look for smarter ways to do business and for leaders to "empower Airmen to think creatively, find new solutions, and make decisions" (Air Force 2013f, 4).

The new vision statement's focus on innovation was a central theme later in the year at the Air and Space Exposition.

Annually, the Air Force Association brings together Air Force leadership, industry experts, academia, and current aerospace specialists from around the world to discuss the issues and challenges facing America and the aerospace community. The top echelon of Air Force senior leadership, including the Chief of Staff, commanders, and senior enlisted advisors of every Air Force Major Command attended this event in September of 2013. During the event the topic of innovation was espoused in speeches, question and answer sessions, and through leadership panel discussions.

Acting Secretary of the Air Force, Eric Fanning, presented his "State of the Force" speech during which he spoke about the need for innovation: "Our successes are based on Airmen adapting, innovating, and pioneering new solutions to intractable problems. If we make the right choices today, building on the innovation, we will be 'the' dominant service in the foreseeable future" (Air Force 2013e, 4).

General Welsh provided his "Air Force Update" during which he challenged leaders at all levels to encourage Airmen to look for new ways to do things and empower them to execute their innovations. He stated that Airmen "don't feel empowered. They don't feel like they can make decisions or make suggestions because they don't think anybody will listen to them. We've got to change that. If we don't, we'll fail" (Air Force 2013a, 12).

General Mike Hostage, Air Combat Command Commander, continued with the theme of creating an environment which allows for Airmen to find creative solutions to future problems. He stated that "the women and men of Air Combat Command possess

the knowledge, creativity, and drive to overcome highly complex and dynamic challenges" and the ability to "synthesize seemingly disparate elements in creative ways, providing innovative solutions for the Combatant Commander" (Air Force 2013c, 2-3). After establishing that the Airmen in his command possessed the capability to create innovative solutions, he emphasized the need for leaders to create an environment which will stimulate and support their creative efforts (Air Force 2013c, 3). The Air Force senior enlisted leaders also spoke at length about innovation.

The Chief Master Sergeant of the Air Force, Chief James Cody, spoke about the importance of creating an environment that allows Airmen to seek innovative ways to solve problems: "what we really try to do now is give them resources to say what would you do with the resources and step back. Instead of us trying to drive it, let them drive it" (Air Force 2013d, 11). Chief Hornback, from the Air Force Global Strike Command, challenged Airmen to continue to look for better ways to do things. He wants Airmen to "challenge some of the old norms out there of what we've done, what we've always done, and start looking into the guidance and regulation that drives that," and to also ask if "this is something we can change to get better, get cheaper, be more effective while being efficient" (Air Force 2013b, 4).

The Air Forces' new vision statement titled "The World's Greatest Air Force Powered by Airmen, Fueled by Innovation" emphasizes the need for Airmen to be creative in order to ensure future success and demands that leaders at all levels be able to encourage innovation. When looking at innovation from a leadership standpoint, two main concepts emerge: fostering a climate which inspires creative thinking and the process of turning these ideas into reality. Creativity is coming up with the idea while

3

innovation is about executing the idea (Govinderajan 2010). Furthermore, creativity is about "unleashing the potential of the mind to conceive new ideas" whereas innovation is the application of these ideas to solve problems (Marshall 2013). Even though innovation does not occur without processes and procedures which turn creative ideas into innovative solutions, conditions must first exist that allow the creative ideas and solutions to emerge. Therefore, the focus of this thesis is on the first step of innovation, the creativity aspect, and begins by asking how the Air Force develops leaders who can successfully carry out this vision and create organizations which encourage and stimulate creativity? The answer to that question begins with doctrine.

The USAF defines doctrine as a "body of carefully developed, sanctioned ideas which has been officially approved or ratified corporately" (Department of the Air Force 2011a, 1). It also "establishes a common frame of reference including intellectual tools that commanders use to solve military problems. It is what we believe to be true about the best way to do things based on the evidence to date" (Department of the Air Force 2011a, 1). Additionally, "to be effective—and most importantly, relevant—doctrine should adapt and evolve. . . . In the end, Air Force doctrine should provide a better, more relevant baseline for ongoing and future operations" (Department of the Air Force 2011a, ix). Furthermore, Air Force Doctrine Document (AFDD) 1-1, Leadership and Force Development, "is the Air Force's capstone doctrinal publication on leadership and how the Service uses force development to build leaders. This document is the Air Force statement of leadership principles and presents the Air Force's best practices for creating leaders and applying leadership . . . to all lines of rank, component, and status" (Department of the Air Force 2011b, iv-v). AFDD 1-1 contains the Air Force's

Institutional Competency List (ICL), which prescribes a set of individual leadership attributes which are to be developed over the course of one's career.

The Air Force's leader development strategy is centered on leadership competencies, which are defined as "attributes an individual possesses to successfully and consistently perform a given task, under specified conditions, or meeting a defined standard of performance" (Department of the Air Force 2011b, 40). AFDD 1-1 identifies eight institutional competencies which are developed during an Airmen's career through education, training and experience. The eight Air Force Institutional Competencies are: embodies airman culture, communicating, leading people, fostering collaborative relationships, employing military capabilities, enterprise perspective, managing organizations and resources, and strategic thinking. These competencies are "broadly applicable and span all occupations, functions, and organizational levels." They "place the institutional responsibilities into a context of how the individual should be developed and form the framework for force development in the Air Force" (Department of the Air Force 2011b, 40). If the Air Force intends to develop leaders who can foster a climate which encourages creativity, then the competencies in the ICL need to support that endeavor.

<center>Research Questions</center>

The updated vision calls for leaders to empower Airmen to think creatively and for Airmen to embrace new thinking while constantly looking for smarter ways to do business. The purpose of this thesis is to determine if the current leadership competencies prescribed in the Air Force Institutional Competency List support the Air Force's updated vision by developing leaders who can create organizations which encourage and

<center>5</center>

stimulate creativity. This determination was made through answering the following questions: (1) What are the key aspects of a creative organization and (2) what leadership competencies are necessary to lead a creative organization?

<u>Scope and Limitations</u>

Research began by identifying the key aspects of a creative organization. Using these key aspects as a frame, the next phase of research examined current and contemporary leadership theories and approaches for competencies which are required for leaders who can lead creative organizations. The review of classical and contemporary leadership approaches and theories focused on contingency theories and approaches based on leadership competencies. The competencies were further delimited to ones that resulted in a leader creating an environment which enhanced and encouraged the development and use of creative thinking skills.

Since the current Air Force leader development strategy is based on competencies and characteristics which can be developed, leadership theories based on personality traits were not examined. Additionally, style and situational approaches were reviewed but were not included in the literature review. Both approaches deal with when and how to utilize leadership attributes in order to get results. While both approaches are necessary for comprehensive leader development and leadership doctrine, they were omitted due to the limited scope of this thesis.

In total, four leadership approaches and theories emerged which were then examined for applicable leadership competencies: skills approach, path-goal theory, leader-member exchange theory, and transformational leadership. While not a leadership theory or approach, information on emotional intelligence was also examined because of

its interconnectedness to the four leadership approaches/theories examined. These competencies were then compared to the current list of competencies prescribed in AFDD 1-1 in order to determine if the current list was sufficient or if gaps existed between the vision and current doctrine. This gap analysis determined if the updated vision statement is supported by the current Air Force leadership competencies or if the Air Force needs to add to its' ICL.

Significance of this Research

If the Air Force's goal is to develop leaders who are skilled at fostering an environment which stimulates creativity, then the doctrine needs to sufficiently support that goal. Since doctrine is at the heart of the Air Force leader development strategy and drives curriculum development at all professional military education levels and commissioning sources, without sufficient content relating to leading creative organizations, it is unlikely that current or future leaders will be deliberately developed in this area.

CHAPTER 2

LITERATURE REVIEW

In January of 2013, the Air Force released an updated vision statement titled "The World's Greatest Air Force Powered by Airmen, Fueled by Innovation" which acknowledges the importance of innovation and demands the development of leaders at all levels that are capable of fostering a climate which stimulates creativity. In order to meet the new vision, the Air Force needs to develop leaders at all levels that can develop and lead creative organizations. The Air Force leader development model is centered on eight institutional competencies which are developed through education, training and experience over the course of one's career. The purpose of this thesis is to determine if the current leadership competencies prescribed in the Air Force Institutional Competency List support the Air Force's updated vision by developing leaders who can create an environment which encourages creative thinking. This determination was made through answering the following questions: (1) What are the key aspects of a creative organization and (2) what leadership competencies are necessary to lead a creative organization? The results of the research were then compared against the current competencies through a gap analysis in order to determine the sufficiency of the current competencies.

This chapter is a summary of classical and contemporary leadership literature which was reviewed for aspects of a creative culture and leadership competencies needed to produce an environment which stimulates creativity. This chapter is organized into three main parts: the first part identifies the aspects of a creative organization; the second part builds off the previous research and identifies leadership competencies which are

necessary to lead a creative organization; and finally, the third part is a review of the current eight leadership competencies prescribed in AFDD 1-1.

Creative Organizations

In order for the Air Force to develop leaders who can execute the updated vision of innovation, leaders at all levels need to know how to foster a climate which stimulates creative thinking. The purpose of this section of the literature review is to establish the key aspects of a creative organization and identify any corresponding leadership competencies which can be used in the gap analysis. This section also provides a frame for the following review of classical and contemporary leadership theories and approaches.

Research indicates that leadership is more important to creative and innovative efforts than in other domains (Mumford, Robledo, and Hester 2011, 405). There are several things that leaders can do in order to facilitate creativity, (Hughes, Ginnett and Curphy 2012, 309) but the most critical one is displaying sensitivity to the needs of the followers (Mumford, Robiledo, and Hester 2011, 406). The most common themes across the reviewed literature were the need to appeal to and increase an individual's intrinsic motivation level, the need to encourage open expression, the need to improve mental models, and the need to reward success. Overwhelmingly, the literature review revealed that an individual's intrinsic motivation was the key to creativity.

A key aspect of a creative organization is how well it supports and increases the level of intrinsic motivation. Leaders focusing on intrinsic motivation can foster creative efforts (Hughes, Ginnett, and Curphy 2012, 309). Additionally, the drive to do something because it is interesting, challenging, and absorbing (intrinsic motivation) is essential for

high-levels of creativity (Pink 2009, 46). The "Sage Handbook of Leadership" has a chapter dedicated to the relationship between creativity and leadership. In it, the authors conclude that motivation, specifically intrinsic motivation, was critical to creative solutions (Mumford, Robiledo, and Hester 2011, 406-416). Their research also identified that creative work is accomplished by an "autonomous driven individual intensely working on a demanding problem where expertise and complex processing strategies are applied in an attempt to generate viable solutions in collaboration with others" (Mumford, Robiledo, and Hester 2011, 407). The concepts of autonomy and expertise mentioned above are key components to intrinsic motivation. In his book "Drive," Daniel Pink identifies three components to intrinsic motivation: autonomy, mastery and purpose.

Creative people tend to be autonomous and driven to purse their own interests (Mumford, Robiledo, and Hester 2011, 409). In order to appeal to one's intrinsic motivation, leaders need to grant followers a reasonable amount of autonomy over what they do, when they do it, with whom they do it, and how they do it (Pink 2009, 207-208). Autonomy means giving people the opportunity to act with a choice; however, it is not do it by yourself individualism (Pink 2009, 90). Leaders need to resist the temptation to control people and instead focus their efforts on unlocking each individual's "deep-seated sense of autonomy" (Pink 2009, 89). Close or overly tight supervision of people's work could inhibit creativity and innovation (Mumford, Robiledo, and Hester 2011, 409). The willingness of leaders to release control and give individuals choices (autonomy) comes from their beliefs about human nature.

Leaders who believe that people are lazy, passive, and have no concerns for causes greater than themselves, will ultimately create a self-fulfilling prophecy and be

forced to exert control over employee's actions (Schein 2010, 367). Conversely, leaders having a more optimistic view of human nature, one that believes that people are generally self-motivated (Schein 2010, 145) can unlock creativity and ingenuity (Pink 2009, 76) by challenging and channeling, not controlling (Schein 2010, 145). Leaders must give individuals the space to take calculated risks, learn, apply, and iterate (Mills-Scofield 2013).

The study of neuroscience also provides insights into how leaders can appeal to intrinsic motivation and unlock creative ideas. The human brain is governed by two neural pathways; the first takes us from a state of high physiological arousal (stress) down to a place of comfort. The second moves us from a low state of arousal (boredom) toward excitement. Movement along the first pathway, from stress to comfort, does not inspire creative ideas; instead workers seek comfort and familiarity. However, movement along the second pathway, from complacency to excitement, is much more likely to trigger innovation. Movement along this pathway is accomplished through positive reinforcement, encouragement, respect, and enhanced responsibility (Shiv 2013).

Leaders wishing to support autonomy need to see issues from the subordinate's point of view, give meaningful feedback and information, provide subordinate choices on how and what they do and encourage them to take on new projects (Pink 2009, 91). Leaders can also provide autonomy through delegating authority, responsibility, and empowering subordinates to be decision makers. Lastly, removing unnecessary constraints and encouraging follower's to take risks are things leaders can do to provide autonomy and therefore stimulate creativity (Hughes, Ginnett, and Curphy 2012, 309-311).

11

The second component to intrinsic motivation is mastery. Leaders need to offer their followers opportunities to become better at something that matters. Creative problem solving ultimately depends on the expertise of the individuals attempting to solve the problem (Mumford, Robiledo, and Hester 2011, 406), therefore, leaders must ensure that individuals have achieved an adequate level of technical expertise (Mehregany 2013). Because people have pride and confidence in their ability to adapt and learn (Yukl 2006, 311), mastery can be achieved by matching followers' abilities to challenges (Pink 2009, 207-208). If what leaders ask of their followers exceeds their capabilities, the result is anxiety. On the other hand, if what leaders ask of their followers falls short of what they are capable of, the result is boredom. Therefore, the key to mastery is for leaders to match follower's capabilities to tasks, while also providing opportunities for followers to increase their capabilities (Pink 2009, 119). Even in routine tasks, when people are given difficult problems to tackle, with the appropriate amount of support and tools, they can do things faster, smarter, and better (Kanter 2013). Mastery also requires strong cultural values for personal and lifelong development and a culture which supports relevant learning practices and quality improvement programs (Yukl 2006, 308-313). While grounded in competence and skills, mastery is essentially about personal growth, learning, and approaching life from a creative standpoint rather than a reactive one (Senge 1990, 131).

The final aspect of intrinsic motivation is the fact that leaders must provide followers with a sense of purpose (Pink 2009, 207-208). Autonomous people working towards mastery will perform at high levels. However, in order to unlock even more potential, leaders need to match that autonomy and mastery to some greater objective

(Pink 2009, 133). One way for a leader to communicate and establish a sense of purpose is by establishing a vision. A vision is a set of beliefs about how people should act and interact to attain an idealized future state (Tourish 2011, 218). A clear vision of what the organization could accomplish or become helps people understand the purpose, objectives, and priorities of the organization (Yukl 2006, 274). A compelling vision contains four elements: ideas, expectations, emotional energy, and an edge. The idea component of a vision begins with an honest assessment of the current state of the organization, a clearly defined picture of the future state, and a roadmap for how the organization is going to get there. A vision must also clearly describe expectations for team member behavior. The last two components, emotional energy and edge, deal with how a vision is communicated. Emotional energy is the amount of enthusiasm leaders use to convey the vision while edge is a term used to describe how to make the vision stick. Edge pertains to creating a picture of the vision which team members can relate to. This can be done through personal stories, historical examples, slogans, analogies and metaphors (Hughes, Ginnett, and Curphy 2012, 658-661). A clearly communicated vision is paramount to an organization which provides individuals or groups autonomy and discretion in their work decisions (Yukl 2006, 274). Additionally, for a vision to be successful, it needs to grow out of the needs for the entire organization and be claimed by those within it (Northouse 2007, 187). A clearly communicated shared vision will foster genuine commitment throughout the organization and drive people to excel and learn because they want to (intrinsic motivation) (Senge 1990, 9). The linkage of autonomy, mastery, and purpose to intrinsic motivation was also found in research conducted by James MacGregor Burns.

In his book "Transforming Leadership," James MacGregor Burns equates leading

people to fulfilling Abraham Maslow's "Hierarchy of Needs." Leaders need to

comprehend and cater to an individual's quest to reach self-actualization. In a leadership

context, self-actualized followers demonstrate a capacity to grow, are flexible, creative,

and competent (Burns 1978, 117). This quest is influenced by both internal and external

factors, both of which can be affected by leaders. The drive towards self-actualization is

centered on the inward-directed wants and motives of self-realization, self-determination,

and self-esteem. The amount of power that one perceives he/she has in achieving these

wants and motives affects an individual's level of intrinsic motivation. By providing a

structure and climate which promotes self-efficacy, leaders will increase the individual

desire to attain self-actualization (Burns 1978, 117). Actions taken by leaders to increase

employee confidence in their abilities (self-efficacy) may in fact motivate creativity

(Mumford, Robledo, and Hester 2011, 412). The structure and climate of the organization

must also provide individuals a chance for mastery and success. Individuals who do not

believe they have the capacity or opportunity to achieve mastery typically lack the

motivation to even try. Individual success strengthens the motivational power of efficacy

and results in an increase in one's confidence, in their ability to drive change, to remain

committed to personal/unit goals, to overcome failures and obstacles, and to exercise

control. Burns also researched the connections between leadership and an individual's

drive towards self-actualization and came to the conclusion that leaders lead by being led.

Building upon Maslow's hierarchy, Burns hypothesizes that leaders can influence an

individual's intrinsic motivation by engaging in mutual self-actualization. This requires

leaders to turn their own self-actualizing qualities outward and focus on the needs and

wants of his/her followers. In order to do this, leaders must have the capacity to learn from others and the environment. This requires leaders who are willing to listen, be guided by others, and depend on others (Burns 1978, 117). The leader must comprehend the wants of followers and then turn those wants into legitimate needs by transforming them into espoused values. In doing so, the leader will have transformed the follower's needs into hopes and aspirations, from which he/she can develop expectations and demands. The key to this theory is the ability of the leader to remain one step ahead of the followers by continuously monitoring evolving wants, needs, and expectations and adjusting demands accordingly. Burns concludes that his idea of mutual self-actualization, the transforming impact people can have on each other, is a crucial dynamic in leadership (Burns 2003, 139-151).

To summarize this section of the literature review up to this point, a key aspect of a creative organization is its ability to promote intrinsic motivation. The organization must provide individuals choices (autonomy) regarding how and when to accomplish tasks; it must provide individuals an opportunity to become technically proficient (mastery); and the organization needs to be unified under a compelling vision (purpose). Additionally, leaders at all levels can positively affect intrinsic motivation by engaging followers in mutual self-actualization and lead by being led. In addition to identifying the key aspect of intrinsic motivation, the literature review up to this point also identified some leadership competencies/characteristics which will be used in the gap analysis: remove unnecessary constraints and grant followers autonomy; believe that individuals are generally self-motivated; demonstrate a sensitivity to follower's needs; show empathy; give effective and timely feedback; encourage risk taking; create and

15

communicate a vision; utilize positive reinforcement, encouragement and respect as motivational tools; and be willing to learn from others. The literature review revealed three more prominent components of a creative organization: the need to encourage open expression, the need to improve mental models, and the need to reward success.

Leaders at all levels must know how to use their power constructively to enhance creativity. Leaders need to encourage the open expression of ideas while also suppressing uncooperative or aggressive reactions between group members (Hughes, Ginnett, and Curphy 2012, 311). Creative people are especially sensitive to the work environment (Mumford, Robledo, and Hester 2011, 410); therefore, leaders need to refrain from being overly critical or passing judgment during the solution generation stage (Hughes, Ginnett, and Curphy 2012, 311). Leaders should refrain from passing judgment with a simple thumbs up or thumbs down and begin feedback with the positive aspects of the idea (Kelley and Kelley 2014). Decision makers must be willing to delay and minimize the evaluation or judgment on proposed solutions while looking at problems from as many perspectives as possible. Additionally, if a leader is perceived as unreceptive to new ideas, then group members may be unwilling to "think out of the box" (Hughes, Ginnett, and Curphy 2012, 309-311). Related to the idea of open expression, creative organizations review each activity periodically to determine its effectiveness and worthiness while constantly questioning traditional assumptions (Yukl 2006, 311). In addition to having an acceptance of open expression, creative organizations also help people understand and improve their mental models. Information on mental models was not prevalent in reviewed leadership literature; however, because of the

interconnectedness of this concept to the previous aspects of a creative organization, the literature review contains a lengthy discussion on this topic.

Leaders should help people understand and improve their mental models about the way things work in organizations and the reasons for success and failure (Yukl 2006, 310). Mental models are "deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action" (Senge 1990, 8). Sometimes, creative solutions to problems fail to get put into practice because they conflict with an individual's current mental model (Senge 1990, 163). The discipline of managing mental models consists of surfacing, testing, and improving our internal pictures (Senge 1990, 163). The first step in managing a mental model is to bring it to the surface and challenge it, so that it can be improved (Senge 1990, 167). Surfacing is accomplished by leaders promoting and developing personal awareness and reflective skills. If an organization promotes inquiry and questioning, then once brought to the surface, the mental model can be tested. The idea of testing ties back into the previous aspect of leaders creating an organization which promotes open expression. In addition to openness, the leader needs to create an organization which makes decisions based on the best interests of the unit (Senge 1990, 172). An organization valuing both openness and merit will lead to followers who believe that they can collectively influence events in the organization (Yukl 2006, 312). The final discipline to managing mental models is to improve one's internal picture. This is accomplished by recognizing the differences between what we say and what we do; by noticing when our thought process jumps from observation to generalization; by being able to articulate what we normally do not say; and by finding a balance between inquiry and advocacy (Senge 1990, 176).

17

The ideal of combining inquiry and advocacy is challenging. When operating in pure advocacy, the goal is to win the argument. When inquiry and advocacy are combined, the goal is to find the best argument. Leaders can practice and develop this balance by creating a climate where thinking is explicit and subject to public examination. This approach leads to genuine vulnerability, so the organization must support open expression and individuals must resist personal attacks. If executed properly, the combination of inquiry and advocacy will shed light on people's assumptions and reasoning and invite others to inquire into them as well (Senge 1990, 184-185). This approach will lead to individuals finding flaws in their own views and therefore improving their mental models.

The final key aspect of a creative organization is rewarding success. Leaders can increase creativity by rewarding success and by not punishing mistakes (Hughes, Ginnett, and Curphy 2012, 311). However, leaders attempting to lead creative organizations must be cognizant of the effects rewards can have on creative efforts. If the leader has created an organization which caters to intrinsic motivation, then typical concrete, tangible rewards may prove less useful as a motivational tool (Mumford, Robledo, and Hester 2011, 411). In fact, external rewards can actually have counterintuitive consequences by transforming interesting tasks into chores. For tasks that demand flexible-problem solving, inventiveness, or conceptual understanding, contingent rewards can be dangerous (Pink 2009, 46). Traditional "if-then" rewards can extinguish intrinsic motivation and crush creativity (Pink 2009, 205). By diminishing intrinsic motivation, "if-then" rewards can send performance, creativity, and even upstanding behavior "toppling like dominoes" (Pink 2009, 37). Instead of using traditional "if-then" rewards,

leaders wishing to foster creativity should use "now-that" rewards. These rewards are noncontingent rewards given after a task is complete and have been shown to sustain creativity levels (Pink 2009, 206). In addition to utilizing "now-that" rewards, leaders can reward intrinsically motivated individuals by providing them a sense of achievement, personal growth, pride in contributing to the organization's success, and respect for doing a good job (Hughes, Ginnett, and Curphy 2012, 152). However, for relatively simple jobs, extrinsic, "if-then," rewards can and should be used to increase employee motivation levels (Mumford, Robledo, and Hester 2011, 412).

Summarizing conclusions made up to this point, the key aspects of a creative organization are the need to appeal to and increase an individual's intrinsic motivation level, the need to encourage open expression, the need to improve mental models, and the need to carefully reward success. The literature review has also identified competencies and characteristics which will be used in the gap analysis: remove unnecessary constraints and grant followers autonomy; believe that individuals are generally self-motivated; demonstrate a sensitivity to follower's needs; show empathy; give effective and timely feedback; encourage risk taking; create and communicate a vision; utilize positive reinforcement, encouragement and respect as motivational tools; be willing to learn from others; encourage open expression and be receptive to new ideas; demonstrate and be able to develop personal awareness and reflective skills; be able to manage internal mental models; and know what types of rewards to use and when. Using the key aspects previously identified as a guide, the next section of the literature review is an examination of leadership theories and approaches.

<u>Current and Contemporary Leadership Theories and Approaches</u>

This section of the literature review is an examination of current and contemporary leadership theories and approaches. It is not intended to be a complete examination of the selected theories and approaches. Each theory and approach examined has books and dedicated chapters in leadership textbooks which fully analyze each subject. A comprehensive review of the selected theories and approaches is beyond the scope of this thesis. Therefore, this section will provide a brief overview of the selected theory or approach and then identify leadership competencies or characteristics which can be used for the gap analysis. Before inclusion into the literature review, the competencies and characteristics were run through the screening criteria identified in the previous section of the literature review: the need to appeal to and increase an individual's intrinsic motivation level, the need to encourage open expression, the need to improve mental models, and the need to carefully reward success. Additionally, since the current Air Force leader development strategy is based on competencies, leadership theories based on personality traits were not examined. Furthermore, style and situational approaches were reviewed but are not included in this thesis. Both approaches deal with when and how to utilize leadership competencies in order to get results. While both approaches are necessary for comprehensive leader development and leadership doctrine, they are not included in the literature review due to the limited scope of this thesis. In total, four leadership approaches and theories emerged with competencies which are necessary for leaders who wish to foster creative thinking: skills approach, path-goal theory, leader-member exchange theory and transformational leadership. While not a leadership theory or approach, information on emotional intelligence is included in the

literature review and will be utilized in the gap analysis. The first leadership approach examined was the skills approach.

Skills Approach

The skills approach to leadership emphasizes skills and abilities which can be learned and in turn create an effective leader (Northouse 2007, 39). Two skill approaches were examined for this thesis: the three-skill approach and the skills model. The three-skill approach identifies three personal skills which are required for effective leadership: technical, human, and conceptual. Two of the three skills, human and conceptual, are relevant to this thesis and were examined for leadership abilities which can produce a creative culture. Human skill is defined as knowledge about and the ability to work with people, or in other words, "people skills." More specifically, it means being aware of one's own perspectives (mental models) and at the same time being aware of the perspective of others (Northouse 2007, 40). These skills include knowledge about human behavior and group processes; the ability to understand the feelings, attitudes, and motives of others; and the ability to communicate clearly and persuasively (Yukl 2006, 200). Leaders demonstrating human skills can adapt their own ideas to those of others and create an atmosphere of trust. As discussed in the previous section of the literature review, creativity is extremely sensitive to the climate. So, a leader who can create a trusting atmosphere where individuals feel comfortable and secure will encourage their engagement into the actions of the organization (Northouse 2007, 41). A leader with human skills is sensitive to the needs and motivations of others and takes this perspective into account when making decisions (Northouse 2007, 42).

The conceptual skill deals with a leader's ability to work with ideas and concepts. These skills involve good judgment, foresight, intuition, and creativity (Yukl 2006, 199). This skill directly correlates to the purpose portion of intrinsic motivation. A leader with conceptual skills understands the ideas that shape an organization and is good at putting the organization's goals into words (vision). A leader demonstrating this skill will be comfortable working with abstractions and hypothetical notions (Northouse 2007, 42).

Building off the three-skill approach is the skills model. Developed in the early 1990s, through funding from the Department of Defense, the skills model was developed to explain the relationship between a leader's capabilities and a leader's performance (Northouse 2007, 43). The model assumes that leadership capabilities can be developed over time through education and experience, and frames these capabilities as knowledge and skills that make effective leadership possible (Northouse 2007, 44). The skills model is built on three leadership competencies: problem-solving skills, social judgment skills, and knowledge. Problem-solving skills are defined as the leader's creative ability to solve "new and unusual, ill-defined organizational problems" (Northouse 2007, 44). These skills include: ability to define significant problems, gather problem information, formulate new understandings about the problem, and generate prototype plans for problem solutions (Northouse 2007, 44-45). The second competency of social judgment skills is the people skills which are required to solve unique organizational problems.

Social judgment skills are very similar to the human skills which were defined in the three-skill approach to leadership. This model takes human skills and breaks it into the following categories: perspective taking, social perceptiveness, behavioral flexibility, and social performance (Northouse 2007, 46). Perspective is defined as being sensitive to

and understanding other people's perspectives. In short, it is empathy. Social perceptiveness is insight and awareness into how people in the organization function, their goals, their problems, and what motivates them (Northouse 2007, 46). Behavioral flexibility is a leader's ability to change and adapt in correlation with other's perspectives in the organization. This requires leaders to remain open and demonstrate a willingness to change (Northouse 2007, 46). Social performance skills, such as persuasion, conflict resolution, and coaching; enable a leader to clearly communicate his/her vision to others.

The final competency of the skills model is knowledge. Knowledge is the accumulation of information and the mental structures (mental models) used to organize that information. Knowledge emerges from the facts and the mental models that we apply the facts to. When combined with experience, knowledge makes it possible for leaders to think about complex system issues and identifying possible solutions (Northouse 2007, 47-48).

In summary, the skills model identifies three competencies (problem-solving skills, social judgment skills, and knowledge) which are required for effective leaders. The competencies and characteristics identified by the three-skill approach and the skills model are: demonstrates social-competence; communicates effectively; develops and engages in mutual trusting relationships; demonstrates problem-solving skills; understands the aspects of conflict resolution; and is skilled at the art of persuasion. The following competencies were previously identified and reiterated by the skills approach and/or skills model: demonstrate a sensitivity to follower's needs; shows empathy; create and communicate a vision; demonstrate and be able to develop personal awareness and

reflective skills; and be able to manage internal mental models. The next theory examined was the path-goal theory of leadership.

Path-Goal Theory

The path-goal theory, based heavily on what motivates people, is about leaders motivating individuals to accomplish unit goals. The theory is based on the expectancy theory which states that employees will be motivated if they think they are capable of performing their work (mastery), if they believe that their efforts will result in a positive outcome, and if they believe that the work they are doing is worthwhile (purpose) (Yukl 2011, 290). The theory suggests that leaders should choose behaviors that complement or supplement what is missing in the workplace. Leaders should try and enhance employee goal attainment by providing information, rewards, or by removing obstacles (Hughes, Ginnett, and Curphy 2012, 542). The path-goal theory describes four different approaches to leadership: directive, supportive, participative, and achievement-oriented (Northouse 2007, 129). The theory states that leaders may exhibit any or all of these four styles with various subordinates during different situations. After examining the four styles through the screening criteria established in the previous section of the literature review, the participative and achievement-oriented approaches are applicable to this thesis.

Participative leadership consists of sharing decision making with subordinates. A participative leader consults with subordinates, obtains their ideas and opinions, and integrates their suggestions into the decision making process (Yukl 2006, 219). Participative leadership has a positive impact when subordinates are autonomous because it involves them in the decision making and structure of the work being performed (Northouse 2007, 134).

The path-goal theory states that an achievement-orientated approach is most effective when subordinates are dealing with an ambiguous task. This type of leadership is defined by challenging subordinates to perform work at the highest level possible. It requires leaders to set exceptionally high standards and expectations and seek continuous improvement (Northouse 2007, 130). Leaders should emphasize excellence in performance and show confidence in subordinate's ability to reach expectations (Yukl 2006, 219). By setting high expectations, the theory suggests that subordinate's confidence level will increase (Northouse 2007, 134).

The path-goal theory is directly applicable to the creative organization components of intrinsic motivation and open expression. The following leadership competencies from the path-goal theory were identified and will be utilized in the gap analysis: sets high standards and seeks continuous improvement. In addition, the following previously identified competencies were also found in the path-goal theory: removes unnecessary constraints and grants followers autonomy; utilizes positive reinforcement, encouragement, and respect as motivational tools; be willing to learn from others; and encourage open expression and be receptive to new ideas. The next leadership theory examined is the leader-member exchange theory.

<div align="center">Leader-Member Exchange Theory</div>

The leader-member exchange (LMX) theory examines leadership through the interactions between leaders and followers (Yukl 2006, 117). The theory is based on research which analyzed the impacts a leader's relationship has on follower performance (Anad et al. 2011, 311). The research revealed two general types of relationships: those based on expanded and negotiated role responsibilities; and those based on the formal

defined roles. Research concluded that the individuals who had an expanded relationship with their leader received more information, influence, confidence, and concern from their leaders. This increase in attention resulted in followers who were more dependable, more involved, and more communicative (Northouse 2007, 154). High quality relationships are characterized by mutual influence, negotiability, and trust and respect (Anad et al. 2011, 312). The theory suggests that leaders should develop high-quality exchanges with all of his or her subordinates rather than just a few. However, it is not necessary to treat all subordinates exactly the same, but each person should perceive that he or she is an important member of the team (Yukl 2006, 121). These high-quality exchanges develop over time through three definitive phases: stranger, acquaintance, and partner (Hughes, Ginnett, and Curphy, 2012, 523). As the relationship between the subordinate and leader matures, mutual trust is developed and the subordinate's focus begins to shift from self-interest to the purpose and goals of the organization (purpose). Leaders who are able to progress to the partner phase will have developed a relationship that is based on a high degree of mutual trust, respect, and obligation towards each other (Yukl 2006, 118). Followers who have a mature partnership with their leader are said to be more effective at work, be willing to do more than is required and look for innovative ways to achieve the group's goals (Northouse 2007, 158). In response to this increase in dedication, studies have shown that leaders respond by giving the followers more responsibilities and opportunities (autonomy) (Northouse 2007, 158). Tying this back into the aspects of a creative organization, establishing partnerships with subordinates will directly appeal to their intrinsic motivation level.

The high-level exchanges necessary to reach the partner phase are "inextricably bound to effective communication" (Northouse 2007, 159). Communication is the means leaders use to create, nurture, and sustain the high-level exchanges (Northouse 2007, 159). In the context of this theory, being able to correct performance deficiencies through effective and accurate feedback is a cornerstone leadership attribute (Yukl 2006, 124). There is a direct correlation to leader's practicing the LMX theory and positive organizational outcomes such as an increase in commitment, job climate, innovation, and empowerment (Northouse 2007, 159). However, once the partner relationships have been established, leaders must continue to provide attention to their subordinates, remain responsive to their needs, and utilize persuasion and consultation for influence (Yukl 2006, 118).

The LMX theory of leadership is based off the positive outcomes derived from a partnership between leaders and followers. The willingness of the leader to engage into a mutual trusting relationship will increase follower's intrinsic motivation levels and improve their willingness and ability to think creatively. Effective communication, especially in the realm of feedback, is a key leadership attribute for this theory. The next theory examined was transformational leadership. LMX and transformational leadership are the most frequently examined theories of leadership over the past twenty years (Anad et al. 2011, 318). Since both theories are grounded in the social exchange process, research has concluded that there are significant congruencies between LMX and transformational leadership (Anad et al. 2011, 318).

Transformational Leadership

Transformational leadership, with its emphasis on intrinsic motivation and follower development, has been the focus of leadership research since the early 1980s. The theory is concerned with emotions, values, ethics, standards, and long-term goals; and focuses on assessing follower's motives, fulfilling their needs, and treating them with respect and dignity (Northouse 2007, 175). In 1978, James MacGregor Burns, in his book "Leadership," identified leadership as either transactional or transformational (Burns 1978, 19-21). He defined transactional leaders as ones who lead through a series of social exchanges. This type of leadership occurs when the leader rewards or disciplines followers based on the adequacy of their performance (Bass and Riggio 2006, 4). Conversely, a transformational leader stimulates, inspires, and engages followers to commit to a shared vision (Burns 1978, 20) and challenges them to be innovative problem solvers (Bass and Riggio 2006, 54). Transformational leaders encourage follower creativity and innovation by promoting follower's autonomy (Diaz-Saenz 2011, 301) and providing a climate that supports followers' innovative efforts (Bass and Riggio 2006, 54). Transformational leaders do much more with colleagues and followers than just focus on simple exchanges. This type of leadership requires charismatic leaders to inspire followers with challenge and persuasion by providing both meaning and understanding to their efforts. Transformational leadership expands the follower's abilities through empowerment and intellectual stimulation. Lastly, transformational leadership considers each individual and provides support, mentoring and coaching. There are four components to transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. When

combined, the four components of transformational leadership appeal to an individual's intrinsic motivation level which stimulates creativity (Bass and Riggio 2006, 53).

Idealized influence comes from both the leaders' actions and in the way the leader is perceived by his/her followers. A transformational leader's actions allow them to serve as role models and they are admired, respected, and trusted by followers (Northouse 2007, 181). Additionally, transformational leaders are seen by their followers to have extraordinary capabilities, persistence, determination, and can be counted on to demonstrate high standards of ethical and moral conduct (Bass and Riggio 2006, 6). Transformational leaders provide followers with a vision and a sense of mission (Northouse 2007, 182).

Through inspirational motivation, transformational leaders garner enthusiasm and optimism by providing followers meaning and challenge to their work. In practice, leaders use symbols and emotional appeals to focus follower's efforts towards objectives greater than their own self-interest (Northouse 2007, 183). This increased enthusiasm and optimism should motivate followers to be more creative in their efforts and products (Bass and Riggio 2006, 53). Transformational leaders get followers involved in creating a vision for the organization and then clearly communicate this shared vision and expectations. Transformational leaders use inspirational motivation to build emotional commitment to a mission or goal and move followers to consider the moral values involved in their efforts (Bass and Riggio 2006, 37). By increasing the perception that the follower's tasks and objectives are consistent with their authentic interests and values, leaders will increase a follower's intrinsic motivation level (Yukl 2006, 264).

Intellectual stimulation is created when the leader stimulates the followers' efforts to be innovative and creative through questioning assumptions, reframing problems, and approaching old situations in new ways (Bass and Riggio 2006, 7). Transformational leaders encourage followers to try new approaches and refrains from criticism when they differ from his/her own opinion (Northouse 2007, 183).

Individualized consideration requires leaders to view individuals as whole persons rather than just an employee of the organization and consistently engages in two-way communication. This factor is displayed by leaders who provide a supportive climate by listening carefully to the individual needs of followers (Northouse 2007, 183) and displaying empathy (Bass and Riggio 2006, 174). Transformational leaders pay attention to each individual's needs for achievement and growth by acting as a coach or mentor, and delegates tasks as a way to develop followers (Northouse 2007, 183). The following table summarizes the four components of transformational leadership (see table 1):

Table 1.   Transformational Leadership Components

Idealized Influence	Provides vision and sense of mission, instills pride, gains respect and trust, become role-models, demonstrates high standards of ethical and moral conduct
Inspirational Motivation	Communicates high expectations, demonstrates commitment to goals and shared vision; displays enthusiasm and optimism; provides meaning and challenge to work; arousing individual and team spirit
Intellectual Stimulation	Encourages innovation and creativity; promotes intelligence, rationality, and creative problem solving
Individual Consideration	Gives personal attention, treats each employee individually, coaches and mentors; creates environment to maximize potential of each employee

Source: Bernard M. Bass, *Leadership, Psychology and Organizational Behavior* (New York: Harper, 1990), 22.

In addition to the four components of transformational leadership, there are five core leadership competencies directly correlated to transformational leaders: critical evaluation and problem detection; envisioning; communicating a vision; impression management; and how and when to empower individuals (Bass and Riggio 2006, 150). Another source in the literature review identified the following transformational leader characteristics: developing a vision; superb rhetorical skills; presenting an unshakeable image of self-confidence, strength, and moral conviction; and establishing strong personal bonds with followers (Hughes, Ginnett, and Curphy 2012, 583). Further research added the need to set high performance expectations (Diaz-Saenz 2011, 301).

In addition to these competencies, leaders who desire to be transformational need broad interpersonal skills, maintain a global perspective, have the ability to build a community, are sensitive to diversity, and display empathy towards their followers (Bass and Riggio 2006, 151). Research on transformational leadership by Bennis and Nanus, published in their 1985 book "Leaders: The Strategies For Taking Charge," identified four common strategies used by transformational leaders (Northouse 2007, 187). First, leaders established and communicated a clear vision of the future state for the organization. Second, transforming leaders were social architects within the organization, meaning that they created a shape or form for the shared meanings maintained within the organization. Third, they created trust in the organization by making their own positions known and then standing by them. Finally, transformational leaders knew their strengths and weaknesses and emphasized their strengths rather than dwelling on their weaknesses (Northouse 2007, 187).

The principles of transformational leadership directly apply to three of the four components of a creative organization: the need to increase intrinsic motivation, the need to encourage open expression, and the need to improve mental models. By displaying individualized influence and inspirational motivation, leaders will positively affect follower's intrinsic motivational levels. Follower's mental models will be challenged through intellectual stimulation and a leader practicing individualized consideration will foster a climate which accepts and practices open expression. The combination of inspirational motivation and individualized consideration may also increase an individual's self-efficacy (Yukl 2006, 264), a topic previously identified in the literature review. Additionally, the foundation of this theory is the ability of the leader to remain one step ahead of the followers by continuously monitoring evolving wants, needs and expectations and adjusting demands accordingly. This idea mirrors the concept of mutual self-actualization, which was also discussed in the previous section of the literature review (Burns 2003, 139-151). Research on transformational leadership identified 18 leadership competencies. All but one (demonstrates high standards of ethical and moral conduct) have been previously identified. In fact of the 22 competencies identified so far, 18 are directly correlated with the theory of transformational leadership. These findings directly support a RAND Corporation published thesis which recommended the Air Force add transformational leadership competencies to its leadership doctrine.

In a 2001 National Defense Fellow study published by the RAND Corporation, titled "Developing Aerospace Leaders for the Twenty First Century," Lt Col Nancy E. Weaver examined the need to incorporate emerging leadership philosophies into Air Force leadership doctrine. Her research was aimed at identifying a set of clear and

recognizable leadership competencies and spanned classical and contemporary leadership theories. She recommended that Air Force doctrine include Transformational Leadership competencies if the service wanted to drive innovation and change instead of merely responding to it (Weaver 2001, 40).

Although not a leadership approach or theory, the next and final topic of this section of the literature review is emotional intelligence. This topic was reviewed because both LMX and transformational leadership theories deal with evoking and managing the emotions of followers. As such, there should be a strong connection between transformational leadership and emotional intelligence (Bass and Riggio 2006, 173).

Emotional Intelligence

Emotional intelligence is about the interplay between our emotions (affective domain) and thinking (cognitive domain) and is concerned with our ability to understand emotions and apply this understanding to life's tasks (Northouse 2007, 22). Effective leaders do not "buy into" or try and suppress their inner feelings, instead they approach them in a mindful, values-driven, and productive way (David and Congleton 2013). Research has identified a positive relationship between emotional intelligence and transformational leadership, through an increase in the follower's positive perception of the leader (Diaz-Saenz 2011, 305). The ability to understand and influence emotions in others will help a leader who is attempting to arouse followers' optimism and enthusiasm (Yukl 2006, 202). The relationship between leaders' emotions and their effects on teams and performance became popularized by researcher Daniel Goleman (Hughes, Ginnett, and Curphy 2012, 222).

In his book Emotional Intelligence, Daniel Goleman defines emotional

intelligence as "being able to rein in emotional impulse; to read another's innermost

feelings; and to handle relationships smoothly" (Goleman 1995, xiii). He argues that

fundamental ethical stances are derived from underlying emotional capacities (Goleman

1995, xxii). Individuals who demonstrate emotional intelligence possess the following

characteristics: self-motivation, persistence, the ability to control impulses and delay

gratification, and the ability to regulate emotions so that distress does not hamper one's

ability to make sound decisions (Goleman 1995, 34). Emotion recognition ability,

positive affectivity, and agreeableness all positively correlate to transformational

leadership behavior (Bass and Riggio 2006, 174). Additionally, emotional intelligence is

comprised of five abilities which are presented in further detail in the following table (see

table 2): knowing one's emotions, managing emotions, motivating oneself, recognizing

emotions in others, and handling relationships. An emotionally intelligent leader can

monitor his or her moods through self-awareness, change them for the better through self-

management, understand their impact through empathy, and act in ways that boost others'

moods through relationship management (Goleman, Boyatzis, and McKee 2001).

Emotional intelligence can be learned through individual coaching, relevant feedback,

and a strong desire for personal development (Yukl 2006, 202).

Table 2.   Emotional Intelligence Competencies

Knowing one's emotions	Self awareness - recognizing a feeling as it happens - is the keystone to emotional intelligence. The ability to monitor feelings from moment to moment is crucial to psychological insight and self-understanding. An inability to notice our true feelings leaves us at their mercy. People with a greater certainty about their feelings are better pilots of their lives, having a surer sense about how they really feel about personal decisions.
Managing emotions	Handing feelings so they are appropriate is an ability that builds on self-awareness. Managing emotions includes the capacity to soothe oneself, to shake off rampant anxiety, gloom, or irritability. People who are poor in this ability are constantly battling feelings of distress, while those who excel in it can bounce back far more quickly from life's setbacks and upsets.
Motivating oneself	Marshalling emotions in the service of a goal is essential for paying attention, for self-motivation and mastery, and for creativity. Emotional self-control - delaying gratification and stifling impulsiveness - underlies accomplishment of every sort. And being able to get into the "flow" state enables outstanding performance of all kinds. People who have this skill tend to be more highly productive and effective in whatever they undertake.
Recognizing emotions in others	Empathy, another ability that builds on emotional self-awareness, is the fundamental "people skill." People who are empathic are more attuned to the subtle social signals that indicate what others need or want. This makes them better at callings such as the caring professions, teaching, sales, and management.
Handling relationships	The art of relationships is a skill in managing emotions in others and is comprised of social competence and incompetence. These are the abilities that undergird popularity, leadership, and interpersonal effectiveness. People who excel in these skills do well at anything that relies on interacting smoothly with others; they are social stars.

Source: Daniel Goleman, *Emotional Intelligence* (New York: Bantam Books, 1995), 43.

Empathy is a key aspect of emotional intelligence and has been identified as a key leadership competency throughout this literature review. In the context of emotional intelligence, empathy is defined as "the ability to comprehend another's feelings and to re-experience them oneself" (Ashakansay and Humphrey 2011, 371). This definition is

more of an interactive view of empathy which is based on the theory that leaders need to create a "reciprocal interactive empathic bond" with others, rather than just passively receiving others' emotions (Ashakansay and Humphrey 2011, 371). Since this definition appears to meet the intent of empathy identified throughout the literature review, this definition for empathy was used during the gap analysis.

This concludes this section of the literature review which identified key leadership competencies required for leaders wanting to develop a creative organization. These competencies were identified by reviewing current and contemporary leadership literature through the lens established in the first section of the literature review which identified the key aspects of a creative organization. The key competencies identified in this section of the literature review were: demonstrates social-competence, communicates effectively; develops and engages in mutual trusting relationships; demonstrates problem-solving skills; understands the aspects of conflict resolution; skilled at the art of persuasion; sets high standards; seeks continuous improvement; demonstrates high standards of ethical and moral conduct; displays ability to manage emotions and display emotional self-control. In addition, the following competencies identified during the first section of the literature review were also found during the review of leadership theories and approaches: removes unnecessary constraints and grants followers autonomy; utilizes positive reinforcement, encouragement, and respect as motivational tools; be willing to learn from others; encourage open expression and be receptive to new ideas; demonstrate a sensitivity to follower's needs; shows empathy; create and communicate a vision; demonstrate and be able to develop personal awareness and reflective skills, and be able to manage internal mental models. The final section of the literature review is a

description of the current leadership competencies prescribed in Air Force leadership doctrine.

<u>Air Force Leadership Competencies</u>

The Air Force leader development strategy is built around eight institutional competencies: embodies airman culture, communicating, leading people, fostering collaborative relationships, employing military capabilities, enterprise perspective, managing organizations and resources, and strategic vision. These competencies are "measurable clusters of skills, knowledge, and abilities required of all Airmen and are needed to operate successfully in a constantly changing environment" (Department of the Air Force 2011b, 37) and are developed during one's career through a combination of education, training, and experience. The Air Force further defines these competencies as "attributes an individual possesses to successfully and consistently perform a given task, under specified conditions, or meeting a defined standard of performance" (Department of the Air Force 2011b, 40). Each of the competencies are defined by supporting sub-competencies. The next section defines each of the competencies, beginning with embodies airman culture.

<u>Embodies Airman Culture</u>

The competency of embodies airman culture is supported by the four sub-competencies of: ethical leadership, followership, warrior ethos, and develops self. The sub-competency of ethical leadership expects Airmen to promote the Air Force core values through goals, actions, and behaviors. It also calls for Airmen to develop trust and commitment through words and actions while also being accountable for respective areas

of responsibility, operations of their unit, and in their own personal actions. Lastly, ethical leadership requires that Airmen maintain checks and balances on themselves and others (Department of the Air Force 2011b, 54).

The sub-competency of followership requires Airmen to comprehend and value the essential role of followership in mission accomplishment. It calls for Airmen to seek command, guidance, and/or leadership while providing unbiased advice. Followership requires Airmen to align priorities and actions toward chain of command guidance and to exercise flexibility and adapt quickly to alternating role as leader/follower (Department of the Air Force 2011b, 54).

Possessing a warrior ethos is defined as exhibiting both moral and physical courage during times of physical and mental hardships. Warrior ethos is also about Airmen continuously honing their skills in order to support the employment of military capabilities. Finally, warrior ethos demands that Airmen display military bearing, self-discipline, and self-control (Department of the Air Force 2011b, 54).

The final sub-competency supporting the competency of embodies airman culture is develops self. This sub-competency requires Airmen to introspectively assess themselves to identify strengths and developmental needs. It calls for Airmen to seek and incorporate feedback on their own performance and be cognizant of their personal impact on others. Lastly, it calls for Airmen to continually increase their breadth and depth of knowledge and skills while developing life-long learning habits (Department of the Air Force 2011b, 54).

Communicating

The competency of communicating is supported by the two sub-competencies of speaking and writing and active listening. The speaking and writing sub-competency challenges Airmen to verbally and non-verbally articulate ideas and intent in a clear, concise, and convincing manner. It also calls for Airmen to be able to adjust their communication approach based on the operational environment and needs of the audience. Lastly, Airmen need to create effective communication bridges among units, organizations, and institutions (Department of the Air Force 2011b, 55).

The sub-competency of active listening requires Airmen to foster the free flow of ideas in an atmosphere of open exchange and asks Airmen to actively attempt to understand other's point of view. Lastly, active listening encourages Airmen to solicit feedback to ensure that the intent of their message was understood (Department of the Air Force 2011b, 55).

Leading People

The competency of leading people is defined by the three sub-competencies of develops and inspires others, taking care of people, and diversity. In order to develop and inspire others, Airmen need to help and motivate others to improve their skills and enhance their performance through feedback, coaching, mentoring, and delegating. Airmen also need to empower others and guide them in the direction of their goals and mission accomplishment. Finally, Airmen must inspire others to transcend their own self-interests and embrace personal sacrifice and risk for the good of the organization and mission (Department of the Air Force 2011b, 55).

Taking care of people requires Airmen to adopt a people first attitude and attend to the physical, mental, ethical, and spiritual well-being of fellow Airmen and their families. Additionally, Airmen need to create an environment where Airmen take care of Airmen 24/7, 365 days a year and integrate wellness into mission accomplishment. Finally, the sub-competency of taking care of people asks leaders to establish work-life balance through time management and setting clear expectations and priorities (Department of the Air Force 2011b, 56).

The sub-competency of diversity requires leaders to leverage differences in individual characteristics, experiences, and abilities. It calls for Airmen to foster an inclusive environment, show respect for others regardless of the situation, and treat people in an equitable manner (Department of the Air Force 2011b, 56).

Fostering Collaborative Relationships

The leadership competency of fostering collaborative relationships is supported by two sub-competencies: builds teams and coalitions and negotiating. Leaders must build effective teams for goal and mission accomplishment and to improve the team's performance. They need to contribute to group identity while fostering cohesiveness, confidence, and cooperation. Additionally, in order to build teams and coalitions, Airmen must see and attend to the interests, goals, and values of other individuals and institutions. Finally, teams and coalitions can be built by developing networks and alliances that span organizational, service, department, agency, and national boundaries (Department of the Air Force 2011b, 56).

The other sub-competency in fostering collaborative relationships is negotiating. This sub-competency requires Airmen to understand the underlying principles and

concepts applied before, during, and after a negotiation. It drives Airmen to attain desired mission outcomes while maintaining positive, long-term relationships with key individuals and groups. It also requires Airmen to use appropriate interpersonal styles and methods to reduce tension or conflict between two or more people, anticipate and address conflict constructively, and anticipate and prevent counter-productive confrontations. Finally, negotiating requires leaders to be able to persuade and influence others, build consensus, gain cooperation, and effectively collaborate (Department of the Air Force 2011b, 56).

Employing Military Capabilities

The competency of employing military capabilities is supported by three sub-competencies: operational and strategic art; unit, Air Force, Joint, Coalition capabilities; and non-adversarial crisis response. This competency strictly deals with employing Air Force capabilities and does not include topics that are relevant to leading a creative organization (Department of the Air Force 2011b, 57). Since neither the competency nor sub-competencies directly relate to the topic of this thesis, this competency will not be defined or broken down any further and was not used in the gap analysis.

Enterprise Perspective

The enterprise perspective competency is defined by the four sub-competencies of: enterprise structure and relationships; government organization and processes; global, regional and cultural awareness; and strategic communication. The first sub-competency, enterprise structure and relationships, focuses on understanding the organizational structure and the relationships between the Air Force, Department of Defense, Joint Staff,

Combatant Commands, and other defense agencies. It also requires one to understand how one's function or unit fits into its parent organizations and how the parent organization relates to its external environment (Department of the Air Force 2011b, 58).

Building from the enterprise structure and relationships sub-competency, the sub-competency of government organizations and processes focuses on understanding the essential operating features and functions of the organizations mentioned above. It also requires Airmen to understand the authorization, appropriation, and budget processes as well as acquisition policy and procedures (Department of the Air Force 2011b, 58).

The sub-competency of global, regional, and cultural awareness ensures that Air Force leaders are conscious of regional and other factors influencing defense, domestic, and foreign policy. It also requires one to understand foreign cultural, religious, political, organizational, and societal norms and customs. Lastly, this sub-competency asks Airmen to develop linguistic skills (Department of the Air Force 2011b, 58).

The final sub-competency for enterprise perspective is strategic communication. This requires Airmen to inform and appropriately influence key audiences by synchronizing and integrating communication efforts to deliver truthful, timely, accurate, and credible information, analysis, and opinion (Department of the Air Force 2011b, 58).

<center>Managing Organizations and Resources</center>

The competency of managing organizations and resources is supported by the three sub-competencies of: resource stewardship, change management, and continuous improvement. Resource stewardship deals with leaders identifying, acquiring, administering, and conserving financial, informational, material, warfare, and human resources needed to accomplish the mission. It also calls for leaders to implement "best

practice" management techniques throughout the organization (Department of the Air Force 2011b, 59).

Change management requires a leader to embrace, support, and lead change. This is accomplished by understanding the change management process, critical success factors, and common problems and costs while also being able to perceive opportunities and risks before or as they emerge (Department of the Air Force 2011b, 59).

The sub-competency of continuous improvement deals with leaders originating actions to improve existing conditions and processes, using appropriate methods to identify opportunities, implement solutions, and measure impact. It also calls for supporting ongoing process improvement actions and requires one to anticipate and meet the needs of both internal and external stakeholders (Department of the Air Force 2011b, 59).

Strategic Thinking

The eighth and final Air Force leadership competency, strategic thinking, is defined by three sub-competencies: vision, decision-making, and adaptability. The sub-competency of vision encourages leaders to take a long-term view and build a shared vision that clearly defines and expresses a future state. It guides Airmen to provide innovative and creative insights and solutions for guiding and directing organizations to meet institutional needs. It requires leaders to formulate effective plans and strategies for consistently achieving goals and maximizing mission accomplishment. Finally, vision requires leaders to anticipate potential threats, barriers, and opportunities while taking measured risks (Department of the Air Force 2011b, 59).

The sub-competency of decision-making requires leaders to identify, evaluate, and assimilate data and information from multiple streams and differentiate information according to its utility. Decision-making calls for leaders to use analytic methods in solving problems and developing alternatives. It also requires one to make sound, well-informed, and timely decisions despite conditions of ambiguity, risk, and uncertainty. Additionally, Airmen need to analyze situations critically to anticipate second and third order effects of proposed policies or actions. Finally, decision-making requires establishing metrics to evaluate results and then adapting and implementing feedback based on those results (Department of the Air Force 2011b, 60).

Adaptability means that Airmen will maintain effectiveness when experiencing major changes in work tasks or environment. It also requires one to adjust to change within new work structures processes, requirements, and cultures. Finally, adaptability calls for leaders to respond quickly and proactively to ambiguous and emerging conditions, opportunities, and risks (Department of the Air Force 2011b, 60).

AFDD 1-1 outlines eight leadership competencies which are developed during an Airmen's career through a combination of education, training, and experience. In order for the Air Force to develop leaders who can execute the new vision of innovation, the competencies required to lead a creative organization must be present in AFDD 1-1.

This concludes the literature review portion of the thesis. This chapter was a summary of classical and contemporary leadership literature which was reviewed in order to perform a gap analysis on the current leadership competencies prescribed in AFDD 1-1 and the Air Force's new vision of innovation. This chapter identified the aspects of a creative organization, the leadership competencies which are necessary to lead a creative

organization, and reviewed the current eight leadership competencies prescribed in

AFDD 1-1.

CHAPTER 3

RESEARCH METHODOLOGY

In January of 2013, the Air Force released an updated vision statement titled "The World's Greatest Air Force Powered by Airmen, Fueled by Innovation" which acknowledges the importance of innovation and demands the development of leaders at all levels that are capable of fostering a climate which stimulates creativity. In order to meet the new vision, the Air Force needs to develop leaders at all levels that can lead creative organizations. The Air Force leader development model is centered on eight institutional competencies which are developed through education, training, and experience over the course of one's career. The purpose of this thesis is to determine if the current leadership competencies prescribed in the Air Force Institutional Competency List support the Air Force's updated vision by developing leaders who can create an environment which encourages creative thinking.

This chapter provides the methodology used to determine if the Air Force's current leadership doctrine is sufficient when compared to the requirements of the new vision statement. The determination was made through a gap analysis of qualitative information obtained by reviewing classical and contemporary leadership literature. A gap analysis is a business technique which is used to determine what steps need to be taken in order to move from a current state to a desired future state. A gap analysis consists of: (1) listing characteristic factors (competencies) of the present situation; (2) listing factors needed to achieve the desired future state; and (3) identifying the gaps that exist and need to be addressed (BusinessDictionary.com 2014). Information for the gap analysis emerged throughout the research process.

Research began by examining the Air Force's new vision statement titled "The World's Greatest Air Force Powered by Airmen, Fueled by Innovation." True to its title, innovation is the main theme and primary focus of the vision statement. Comments made by Air Force senior leaders regarding the new vision were also analyzed in order to ensure a sufficient understanding of the vision. A secondary research question emerged from this understanding: how does the Air Force develop leaders who can execute this vision? The answer to this question was found in Air Force leadership doctrine.

Air Force Doctrine Document 1-1 identifies leadership competencies which are developed over the course of one's career through education, training, and experience. This led to the logical conclusion that if the Air Force wants to develop leaders who can stimulate innovation, then the competencies required must be present in Air Force leadership doctrine. This conclusion begged the question: are the competencies required to develop leaders who can lead innovative organizations present in current leadership doctrine? The next phase of research focused on answering this question and began with looking at the term "innovation."

Examination of "innovation" revealed two components: the creative or novel idea and the process or policies required to bring this idea to fruition (Govinderajan 2010) (Marshall 2013). Since research was focused on the leadership development aspect of innovation and the processes and policies appear to be more management related, the decision was made to focus on the creativity aspect of innovation. Specifically, the focus of research had been narrowed to leaders at all levels creating a climate which stimulated creative ideas. This shift and focus resulted in the primary purpose of the thesis which is to determine if the current leadership competencies prescribed in the Air Force

Institutional Competency List support the Air Force's updated vision by developing

leaders who can lead creative organizations. This led to the first of two research

questions: what are the key aspects of a creative organization?

In order to determine the sufficiency of the current competencies, a definition of

the desired future state had to be established. This definition was derived by researching

leadership literature for the key aspects of a creative organization. This portion of the

research identified four key aspects of a creative organization (the need to appeal to and

increase an individual's intrinsic motivation level, the need to encourage open

expression, the need to improve mental models, and the need to reward success) and

thirteen corresponding leadership competencies. Utilizing the four key aspects of a

creative organization as a guide, classical and contemporary leadership theories and

approaches were examined for additional leadership competencies through answering the

second research question.

The second research question of "which leadership competencies are necessary to

create leaders who can lead creative organizations" drove the next phase of research. The

review of classical and contemporary leadership approaches and theories focused on

contingency theories and approaches based on leadership competencies. Since the current

Air Force leader development strategy is based on competencies and characteristics

which can be developed, leadership theories based on personality traits were not

examined. Additionally, style and situational approaches were reviewed but were not

included in the literature review. Both approaches deal with when and how to utilize

leadership competencies in order to get results. While both approaches are necessary for

comprehensive leader development and leadership doctrine, they were omitted due to the

limited scope of this thesis. In total, four leadership approaches and theories emerged which were then fully examined for applicable leadership competencies: skills approach, path-goal theory, leader-member exchange theory and transformational leadership. While not a leadership theory or approach, information on emotional intelligence was also examined because of its interconnectedness to the four leadership approaches and theories examined. This portion of the research identified an additional ten leadership competencies which were not identified through answering the first research question. When combined with the thirteen competencies previously identified, a total of twenty-three competencies were identified through the literature review. In order to assist with determining the sufficiency of the current Air Force leadership competencies, the competencies identified through the literature review were grouped into four tiers. The tiers are based on how many leadership theories/approaches the attribute was found in. If the attribute was found in four or more theories, then it was placed in tier one, three theories equaled tier two, two theories equaled tier three, and finally, if the attribute was only found in one theory/approach then it was placed in tier four. Now that the future state had been identified (aspects of a creative organization) and the requirements to achieve that desired state (leadership competencies) had also been identified, it was time to perform the gap analysis and determine the sufficiency of current Air Force leadership doctrine.

A gap analysis was performed in order to determine if the current leadership competencies prescribed in AFDD 1-1 were sufficient to meet the new vision statement. This analysis was conducted by comparing the competencies identified in the literature

49

review to the competencies currently prescribed in the Air Force Institutional

Competency List. The results of this analysis can be found in chapter 4.

CHAPTER 4

ANALYSIS

In January of 2013, the Air Force released an updated vision statement titled "The World's Greatest Air Force Powered by Airmen, Fueled by Innovation" which acknowledges the importance of innovation and demands the development of leaders at all levels that are capable of fostering climates which stimulate creativity. In order to meet the new vision, the Air Force needs to develop leaders at all levels that can lead creative organizations. The Air Force leader development model is centered on eight institutional competencies which are developed through education, training, and experience over the course of one's career. The purpose of this thesis is to determine if the current leadership competencies prescribed in the Air Force Institutional Competency List support the Air Force's updated vision by developing leaders who can create an environment which encourages creative thinking. This determination was made through answering the following questions: (1) what are the key aspects of a creative organization and (2) what leadership competencies are necessary to lead a creative organization? The results of the research were then compared against the current competencies through a gap analysis in order to determine the sufficiency of the current competencies.

This chapter presents the results of the gap analysis and provides the basis for the recommendations made in chapter 5. The literature review identified twenty-three leadership competencies which are required for leaders who can lead a creative organization. To assist with the gap analysis, each attribute was placed into a tier based on how many theories/approaches the attribute applied to. Competencies applying to four or more theories/approaches were placed in tier one. Only one attribute, shows empathy,

met this criteria. The second tier, for competencies applying to three approaches/theories, has a total of eleven competencies: demonstrates a sensitivity to follower's needs; be able to manage internal mental models; create and communicate a vision; demonstrate and be able to develop personal awareness and reflective skills; utilizes positive reinforcement, encouragement, and respect as motivational tools; encourages open expression and be receptive to new ideas; removes unnecessary constraints and grants followers autonomy; gives effective and timely feedback; develops and engages in mutual trusting relationships; demonstrates social-competence; and communicates effectively.

Competencies that were found in two theories/approaches were grouped into tier three: be willing to learn from others; encourage risk taking; know what types of rewards to use and when; demonstrates problem solving skills; skilled at the art of persuasion; sets high standards; and seeks continuous improvement. The final tier, tier four, is for competencies that only appeared in a single theory/approach: believe that individuals are generally self-motivated; understands the aspects of conflict resolution; demonstrates high standards of ethical and moral conduct; and displays ability to manage emotions and display emotional self-control. A summary of this analysis can be found in table 3 (see table 3). Now that the competencies have been arranged, the next step was to perform the gap analysis.

Table 3.   Summary of Competencies

	Competencies Identified Through Researching Creative Organizations	Skills Approach	Path-Goal Theory	LMX	Transform-ational	Emotional Intelligence
Tier One						
Shows empathy	X	X			X	X
Tier Two						
Demonstrates a sensitivity to follower's needs	X	X			X	
Be able to manage internal mental models	X	X			X	
Create and communicate a vision	X	X			X	
Demonstrate and be able to develop personal awareness and reflective skills	X	X				X
Utilizes positive reinforcement, encouragement, and respect as motivational tools	X		X		X	
Encourages open expression and be receptive to new ideas	X		X		X	
Removes unnecessary constraints and grants followers autonomy	X		X		X	
Gives effective and timely feedback	X			X	X	
Develops and engages in mutual trusting relationships		X		X	X	
Demonstrates social-competence		X			X	X
Communicates effectively		X		X	X	
Tier Three						
Be willing to learn from others	X		X			
Encourages risk taking	X				X	
Know what types of rewards to use and when	X				X	
Demonstrates problem solving skills		X			X	
Skilled at the art of persuasion		X			X	
Sets high standards			X		X	
Seeks continuous improvement			X		X	
Tier Four						
Believe that individuals are generally self-motivated	X					
Understands the aspects of conflict resolution		X				
Demonstrates high standards of ethical and moral conduct					X	
Displays ability to manage emotions and display emotional self-control						X

Source: Created by author.

A gap analysis is a business technique used to determine what steps need to be taken in order to move from a current state to a desired future state. A gap analysis consists of: (1) listing characteristic factors (attributes and/or competencies) of the present situation; (2) listing factors needed to achieve the desired future state; and (3) identifying the gaps that exist and need to be addressed (BusinessDictionary.com 2014). For ease of analysis, this gap analysis was performed in reverse order by comparing the competencies required of the desired future state to the current list of competencies prescribed in AFDD 1-1. The gap analysis began by examining AFDD 1-1 for information regarding empathy.

The only tier one competency, shows empathy, is not present in AFDD 1-1. The closest mention to empathy is under the competency of communicating. Part of the definition includes telling leaders to "actively attempt to understand other's points of view" (Department of the Air Force 2011b, 55). Even a generic definition of empathy goes beyond just understanding another person's point of view. The Merriam-Webster online dictionary defines empathy as "the action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experience of another (Merriam-Webster 2014). Furthermore, in the context of emotional intelligence, empathy is defined as "the ability to comprehend another's feelings and to re-experience them oneself" (Ashakansay and Humphrey 2011, 371). This definition is more of an interactive view of empathy which is based on the theory that leaders need to create a "reciprocal interactive empathic bond" with others, rather than just passively receiving others' emotions (Ashakansay and Humphrey 2011, 371). Based on this view of

empathy, current Air Force leadership doctrine does not include empathy as a competency.

The first of eleven tier two competencies, demonstrates sensitivity to follower's needs, is sufficiently addressed in AFDD 1-1. Components of this attribute can be found in the two competencies of embodies Airman culture and leading people. One aspect of embodies Airman culture is the need to maintain checks and balances on others (Department of the Air Force 2011b, 54). Additionally, as part of the definition of leading people, Air Force leaders are to help and motivate others through feedback, coaching, and mentoring. Also, leaders are to have a "people-first" mindset and attend to the physical, mental, ethical, and spiritual well-being of their Airmen. Lastly, leaders are supposed to create an environment where Airmen take care of Airmen 24/7, 365 days a year (Department of the Air Force 2011b, 55-56). The competency of demonstrates sensitivity to follower's needs is definitely addressed in the Institutional Competency List.

Only one of the three components required for the competency of being able to manage internal mental models is addressed. The discipline of managing mental models consists of surfacing, testing, and improving our internal pictures (Senge 1990, 163). Mental models are "deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action" (Senge 1990, 8). The first step in managing a mental model is to bring it to the surface and challenge it, so that it can be improved (Senge 1990, 167). Surfacing is accomplished by leaders promoting and developing personal awareness and reflective skills. At first glance, this portion of managing mental models appears to be covered under the competency of embodies Airman culture, where leaders are encouraged to assess

themselves in order to identify strengths and developmental needs (Department of the Air Force 2011b, 54). However, this definition, which falls under the sub-competency of develops self, appears to be focused on identifying an individual's strength and weaknesses, and does not specifically address assessing one's thought processes. The second aspect, testing, is addressed in current leadership doctrine. The idea of testing ties into the aspect of leaders creating a culture of open expression, which is included in the definition for the competency of communicating (Department of the Air Force 2011b, 55). The other aspect of managing internal mental models that is not covered is improving our internal pictures. This is accomplished by recognizing the differences between what we say and what we do; by noticing when our thought process jumps from observation to generalization; by being able to articulate what we normally do not say; and finding a balance between inquiry and advocacy (Senge 1990, 176). AFDD 1-1 does not contain any information related to improving one's internal pictures, therefore, while a portion of this competency is addressed, as a whole, the competency is not addressed sufficiently.

The leadership competency of create and communicate a vision is sufficiently addressed through the competencies of strategic thinking and communicating. The definition of strategic thinking includes building a shared vision that clearly defines and expresses a future state (Department of the Air Force 2011b, 59). The communication aspect is addressed under the communicating competency as "being able to articulate ideas in a clear, concise, and convincing manner" (Department of the Air Force 2011b, 55). AFDD 1-1 contains all the key aspects for this competency.

The competency of demonstrate and be able to develop personal awareness and reflective skills is not addressed in current Air Force leadership doctrine. As previously discussed in the analysis for managing mental models, the current competency of embodies Airman culture does include being able to asses self in order to identify strengths and weaknesses. However, this definition does not match the intent of personal awareness and reflective skills as discovered through analysis of mental models, the skills approach to leadership, and emotional intelligence. According to all three, personal awareness is about being aware of your own perspectives, thought processes, and emotions. Therefore, the competency of demonstrate and be able to develop personal awareness is not addressed in AFDD 1-1.

While current leadership doctrine addresses respect and motivation, it does not address them sufficiently when compared to the intent of the utilizes positive reinforcement, encouragement, and respect as motivational tools competency. The current Air Force competency of leading people encourages leaders to help and motivate others through the use of feedback, coaching, mentoring, and delegating and calls for leaders to show respect for others and treat people in an equitable manner (Department of the Air Force 2011b, 55). While these are all important competencies for leaders, they do not speak to the effect that positive reinforcement, encouragement, and respect can have on an individual's intrinsic motivation levels. Considering that intrinsic motivation is a primary source for creative thinking, the leadership doctrine should make this connection; therefore, this competency is not sufficiently addressed in current Air Force leadership doctrine.

AFDD 1-1 adequately addresses the competency of encourages open expression and be receptive to new ideas. The ICL lists communication as a leadership competency that is to be developed over the course of one's career. This competency includes fostering the "free flow of ideas in an atmosphere of open exchange" and requires leaders to "actively attempt to understand other's points of view" (Department of the Air Force 2011b, 55). These components of the definition for communicating sufficiently addresses the key leadership competency of encourages open expression and be receptive to new ideas.

A key competency to unlocking one's intrinsic motivation, removes unnecessary constraints and grants followers autonomy, is not addressed in current leadership doctrine. AFDD 1-1 does mention the need to empower and delegate as part of leading people (Department of the Air Force 2011b, 55), but it fails to mention autonomy; which has more to do with giving people choices instead of merely passing responsibilities to lower levels (Pink 2009, 90). The competency of removes unnecessary constraints and grants followers' autonomy is not included in the current ICL.

The need for leaders to give effective and timely feedback is adequately covered in AFDD 1-1. The competency of leading people includes leaders utilizing feedback to improve follower's performance (Department of the Air Force 2011b, 55) and a leader should be able to demonstrate effective communication skills through the development of the communicating competency. Therefore, the key leadership competency of gives effective and timely feedback is sufficiently addressed in current Air Force leadership doctrine.

The current ICL does not address the need for leaders to develop and engage in mutual trusting relationships. Leaders are encouraged to develop trust and commitment through their words and actions as part of the embodies Airman culture competency (Department of the Air Force 2011b, 54); however, the doctrine does not mention turning that trust into a mutual supporting relationship. The key leadership competency of develops and engages in mutual trusting relationships is not amply addressed in AFDD 1-1.

A key competency to both emotional intelligence and transformational leadership, demonstrating social-competence, is satisfactorily addressed in current leadership doctrine. This attribute, mainly concerned with interpersonal skills, is addressed in four competencies: embodies Airman culture, communicating, leading people, and fostering collaborative relationships. The current doctrine encourages leaders to be aware of their personal impact on others, actively attempt to understand others' points of view, show respect for others, attend to the needs of individuals, and utilize the appropriate interpersonal styles and methods based on the situation (Department of the Air Force 2011b, 54-56). Even though the attribute of social-competence is complex, AFDD 1-1 sufficiently addresses it.

The final tier two attribute, communicates effectively, is also sufficiently addressed through the competency of communicating. Interestingly, of the six tier two competencies that the current doctrine sufficiently addresses, four are directly related to communicating (create and communicate a vision; encourage open expression; gives effective and timely feedback; and communicates effectively). Unfortunately, there were three tier two competencies which were not addressed at all (personal awareness; remove

59

constraints and provide autonomy; and engage in mutual trusting relationships) and two

tier two competencies which were not addressed sufficiently (manage internal mental

models and utilize motivational tools). The next phase of the gap analysis examines

competencies that were present in two of the six theories/approaches.

Current leadership doctrine does not address three of the seven tier three

competencies: be willing to learn from others; know what types of rewards to use and

when; and sets high standards. However, it does adequately address the remaining four.

The competencies of encourages risk taking and demonstrates problem solving skills are

both included in the definition of the strategic thinking competency (Department of the

Air Force 2011b, 59). The definition for fostering collaborative relationships includes

developing leaders who can persuade and influence others, which suitably addresses the

competency of being skilled at the art of persuasion (Department of the Air Force 2011b,

56). Finally, the attribute of seeks continuous improvement has its own sub-competency

underneath the management of organizations and resources competency (Department of

the Air Force 2011b, 59). The current ICL sufficiently addresses four of the seven

competencies which were found in two of the leadership theories/approaches. The final

group of competencies analyzed was the ones that were only found in a single theory or

approach.

Half of the tier four competencies are sufficiently addressed in AFDD 1-1. The

competency which requires leaders to understand the aspects of conflict resolution is

addressed in the current competency of fostering collaborative relationships (Department

of the Air Force 2011b, 56). Additionally, the competency of embodies Airman culture

directs leaders to promote the Air Force core values through their actions and referent

60

behaviors (Department of the Air Force 2011b, 54); which satisfactorily addresses the competency of demonstrates high standards of ethical and moral conduct. However, the competencies of believing that individuals are generally self-motivated and displaying the ability to manage emotions and display emotional self-control are not addressed.

To summarize the gap analysis, only twelve of the twenty-three competencies identified through the literature review were addressed sufficiently in current Air Force leadership doctrine. Additionally, only six of the twelve competencies from tiers one and two are currently addressed adequately (see table 4). Based on these results, current Air Force leadership doctrine is not sufficient to meet the needs of the new vision statement. If the Air Force wants to develop leaders who can foster creative environments and lead creative organizations, some changes need to be made to the current leadership doctrine.

Table 4.   Gap Analysis

	Sufficiently Addressed	Addressed, but not sufficiently	Not mentioned
Tier One			
Shows empathy			X
Tier Two			
Demonstrates a sensitivity to follower's needs	X		
Be able to manage internal mental models		X	
Create and communicate a vision	X		
Demonstrate and be able to develop personal awareness and reflective skills			X
Utilizes positive reinforcement, encouragement, and respect as motivational tools		X	
Encourages open expression and be receptive to new ideas	X		
Removes unnecessary constraints and grants followers autonomy			X
Gives effective and timely feedback	X		
Develops and engages in mutual trusting relationships			X
Demonstrates social-competence	X		
Communicates effectively	X		
Tier Three			
Be willing to learn from others			X
Encourages risk taking	X		
Know what types of rewards to use and when			X
Demonstrates problem solving skills	X		
Skilled at the art of persuasion	X		
Sets high standards			X
Seeks continuous improvement	X		
Tier Four			
Believe that individuals are generally self-motivated			X
Understands the aspects of conflict resolution	X		
Demonstrates high standards of ethical and moral conduct	X		
Displays ability to manage emotions and display emotional self-control			X

Source: Created by author.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

In January of 2013, the Air Force released an updated vision statement titled "The World's Greatest Air Force Powered by Airmen, Fueled by Innovation" which acknowledges the importance of innovation and demands the development of leaders at all levels that are capable of fostering a climate which stimulates creativity. In order to meet the new vision, the Air Force needs to develop leaders at all levels that can lead creative organizations. The Air Force leader development model is centered on eight institutional competencies which are developed through education, training, and experience over the course of one's career. The purpose of this thesis was to determine if the current leadership competencies prescribed in the Air Force Institutional Competency List support the Air Force's updated vision by developing leaders who can create an environment which encourages creative thinking. This determination was made through answering the following questions: (1) what are the key aspects of a creative organization and (2) what leadership competencies are necessary to lead a creative organization? After comparing the results of the research to the current competencies through a gap analysis, it was determined that current leadership doctrine is not sufficient. With only twelve of the twenty-three competencies identified through the literature review being addressed sufficiently in current leadership doctrine, the Air Force needs to address these deficiencies if it wants to develop leaders who can execute the new vision. This chapter provides conclusions and recommendations on how to address these deficiencies.

The literature review identified four key aspects of a creative culture and four applicable leadership approaches/theories. However, one aspect and one leadership

theory emerged as being significantly more prevalent to this thesis. Overwhelmingly, the literature review identified intrinsic motivation as the best predictor of creative thinking. Recommend doctrine writers at the LeMay Center build from this research and add information on how leaders can positively affect intrinsic motivation. Of the four leadership theories/approaches examined, transformational leadership was the most applicable.

Eighteen of the twenty-three competencies identified through the literature review were found in the transformational leadership theory. Echoing the recommendations made by Lt Col Nancy Weaver in her National Defense Fellow study, the Air Force needs to adopt the entire transformational approach to leadership (Weaver 2001, 40). The literature review revealed that there is synergy between the four competencies (idealized influence, inspirational motivation, intellectual stimulation, and individual consideration); therefore, instead of just picking and choosing some of the competencies, the Air Force should incorporate all four components into AFDD 1-1. Another topic that needs to be added to AFDD 1-1 is emotional intelligence.

During the literature review, components of emotional intelligence were present in all the theories/approaches examined. While this is a relatively new field of study, the Air Force could benefit from including the components of emotional intelligence into the leadership doctrine, which in theory would drive its inclusion into leadership curriculum across professional military education institutions. The final recommendation is regarding the depth of information provided in AFDD 1-1.

The idea for this thesis was developed after reviewing Army Doctrine Reference Publication (ADRP) 6-22, *Army Leadership*, as part of the leadership curriculum at the

Command and General Staff College. There is a stark contrast between the depth of knowledge available in ADRP 6-22 and AFDD 1-1. A noncommissioned officer could hold a mentoring session with a soldier based solely off the information provided in ADRP 6-22. Conversely, a noncommissioned officer in the Air Force can only use AFDD 1-1 as a source of topics for further research. This is not meant to cast judgment on which approach is better, but is intended to highlight the differences between the two services when it comes to leadership doctrine. Recommend, as part of a comprehensive leadership doctrine review, that the Air Force evaluate not just what competencies to include, but also to what depth. What is the intent behind Air Force leadership doctrine? Is it just to provide a source of topics for curriculum developers and self-study or is the intent to provide a document that provides leaders at all levels practical and useful information?

With the recent closing of the Air and Space Basic Course, the first level of PME for junior Air Force officers, leadership doctrine can be utilized to fill the developmental gap that now exists. Support officers will have spent four years leading organizations before they have a chance to attend PME. Robust leadership doctrine containing practical tools and approaches could definitely help our junior officers develop into effective leaders, especially considering that leadership doctrine is supposed to include intellectual tools that can be used to solve military problems (Department of the Air Force, 2011a, 1).

As the capstone doctrinal publication on leadership, AFDD 1-1 needs to be reevaluated in light of the Air Force's new vision statement. A gap analysis was conducted comparing the competencies currently prescribed in leadership doctrine to the ones required to execute the new vision. This analysis revealed that only twelve of the

twenty-three competencies identified through review of current and contemporary leadership literature are sufficiently addressed. If the Air Force aims to be fueled by innovation, then the leadership doctrine needs to be set on a new course.

Additional Research Topic

As discussed in the opening chapter, when looking at innovation from a leadership standpoint, two main concepts emerge: fostering a climate which inspires creative thinking and the process of turning these ideas into reality. Since this thesis only addressed the first step to innovation, the creativity aspect, recommend additional research be conducted on the processes and policies required to turn these creative solutions into reality. Since doctrine is intended to "establish a common frame of reference including intellectual tools that commander's use to solve problems" (Department of the Air Force 2011a, 1), then it would only make sense for doctrine to include information which helps leaders implement these new found creative solutions to current and future problems.

REFERENCE LIST

Air Force. 2013a. Air Force update. Speech by Air Force Chief of Staff General Mark A.
        Welsh III, Air Force Association-Air and Space Technology Exposition,
        September 17. http://www.af.mil/Portals/1/documents/af%20events/
        af130917AFAWelshfinal.pdf (accessed September 21, 2013).

———. 2013b. CMSAF Forum. Transcript of question and answer session, Air Force
        Association-Air and Space Technology Exposition, September 16.
        http://www.af.mil/Portals/1/documents/af%20events/af130916AFACMSAFForu
        m.pdf (accessed September 21, 2013).

———. 2013c. Combat air forces in the 2020s. Speech by General Mike Hostage, Air
        Force Association-Air and Space Technology Exposition, September 17.
        http://www.af.mil/Portals/1/documents/af%20events/17SeptAFAGen%20Hostage
        COMACCSpeech.pdf (accessed September 21, 2013).

———. 2013d. Enlisted perspective. Speech by Chief Master Sergeant of the Air Force
        James Cody, Air Force Association-Air and Space Technology Exposition,
        September 18. http://www.af.mil/Portals/1/documents/af%20events/af-130918-
        AFA-CMSAFPerspective.pdf (accessed September 21, 2013).

———. 2013e. State of the Air Force. Speech by acting Secretary of the Air Force, Eric
        Fanning, Air Force Association-Air and Space Technology Exposition, September
        16. http://www.af.mil/Portals/1/documents/af%20events/af-130916-AFA-
        Fanning.pdf (accessed September 21, 2013).

———. 2013f. *A vision for the United States Air Force, The World's Greatest Air Force
        Powered by Airmen, Fueled by Innovation*. http://www.af.mil/Portals/1/
        images/airpower/Vision_Brochure_300DPI.pdf (accessed May 24, 2014).

Anad, Smriti, Jia Hu, Robert C. Linden, and Prajya R. Vidyarthi. 2011. Leader-member
        exchange: Recent research findings and prospects for the future. In *The SAGE
        handbook of leadership*, ed. Alan Bryman, David Collinson, Keith Grint, Brad
        Jackson, and Mary Uhl-Bien, 311-327. Thousand Oaks: SAGE Publications.

Ashakanasy, Neal M., and Ronald H. Humphrey. 2011. A multi-level view of leadership
        and emotion leading with emotional labor. In *The SAGE handbook of leadership*,
        ed. Alan Bryman, David Collinson, Keith Grint, Brad Jackson, and Mary Uhl-
        Bien, 365-380. Thousand Oaks: SAGE Publications.

Avolio, Bruce J., and Bernard M. Bass. 2002. *Developing potential across a full range of
        leadership.* Mahwah: Lawrence Erlbaum Associates.

Bass, Bernard M. 1990. *Leadership, psychology and organizational behavior*. New York:
        Harper.

———. 2006. *Transformational leadership.* 2nd ed. New Jersey: Lawrence Erlbaum Associates.

Burns, James M. 1978. *Leadership.* New York: Harper Torchbooks.

———. 2003. *Transforming leadership.* New York: Grove Press.

BusinessDictionary.com. 2014. Gap analysis. http://www.businessdictionary.com/ definitions/gap-analysis.html (accessed March 5, 2014).

David, Susan, and Christina Congleton. 2013. Emotional agility. *Harvard Business Review* (November). http://hbr.org/2013/11/emotional-agility/ar/1 (accessed October 10, 2013).

Department of the Air Force. 2011a. Air Force Doctrine Document 1, *Air Force basic doctrine, organization, and command*. Montgomery, AL: Secretary of the Air Force.

———. 2011b. Air Force Doctrine Document 1-1, *Leadership and force development*. Montgomery, AL: Secretary of the Air Force.

Department of the Army. 2012. Army Doctrine Reference Publication (ADRP) 6-22, *Army leadership.* Washington, DC: Department of the Army.

Department of Defense. 2013. Air Force news briefing by Secretary Donley and General Welsh on the state of the Air Force in the pentagon briefing room. News Transcript, January 11. http://www.defense.gov/transcripts/transcript.aspx? transcriptid=5174 (accessed September 13, 2013).

Diaz-Saenz, Hector R. 2011. Transformational leadership. In *The SAGE handbook of leadership*, ed. Alan Bryman, David Collinson, Keith Grint, Brad Jackson, and Mary Uhl-Bien, 299-310. Thousand Oaks: SAGE Publications.

Garamone, Jim. 2012. Schwartz, Welsh pay tribute to airmen at Air Force transition. *American Forces Press Service.* August 10. www.defense.gov/news/ newsarticle.aspx?id=117470 (accessed November 15, 2013).

Garvin, David A. 1993. Building a learning organization. *Harvard Business Review* (July-August): 78-91.

Garvin, David A., Amy C. Edmondson, and Francesca Gino. 2008. Is yours a learning organization. *Harvard Business Review* (March): 109-116.

Goleman, Daniel. 1995. *Emotional intelligence.* New York: Bantam Books.

Goleman, Daniel, Richard Boyatzis, and Annie McKee. 2001. Primal leadership: The hidden driver of performance. *Harvard Business Review* (December).

hbr.org/2001/12/primal-leadership-the-hidden-driver-of-great-performance/ar/pr (accessed November 7, 2013).

Govindarajan, Vijay. 2010. Innovation is not creativity. *Harvard Business Review.* (August). http://blogs.hbr.org/2010/08/innovation-is-not-creativity/ (accessed March 28, 2014).

Greenleaf, Robert K. 2002. *Servant leadership: A journey into the nature of legitimate power and greatness*. 25th Anniversary ed. New Jersey: Paulist Press.

Hughes, Richard L, Robert C Ginnett, and Gordon J Curphy. 2012. *Leadership: Enhancing the lessons of experience.* New York: McGraw-Hill/Irwin.

Kanter, Rosabeth Moss. 2013. Three things that actually motivate employees. *Harvard Business Review* (October). blogs.hbr.org/2013/10/three-things-that-actually-motivate-employees/ (accessed January 16, 2014).

Kelley, Tom, and David Kelley. 2014. Use language to shape a creative culture. *Harvard Business* Review (January). blogs.hbr.org/2014/01/use-language-to-shape-a-creative-culture/?utm_source=Socialflow&utm_medium=Tweet& utm_campaign=Socialflow (accessed January 15, 2014).

Klann, Dr. Gene. 2010. L102 Reading A: *The application of power and influence in organizational leadership.* Command and General Staff Officer Course Common Core Reading, Leavenworth: CGSC.

Marshall, Drew. 2013. There's a critical difference between creativity and innovation. *Business Insider* (April). http://www.businessinsider.com/difference-between-creativity-and-innovation-2013-4 (accessed March 28, 2014).

McCollum, Bill, and Matthew Broaddus. n.d. *Leader imposed stress in organizations: Do you improve your organization, or detract from its success?* Command and General Staff Course Common Core Reading, Leavenworth: CGSC

Mehregany, Mehran. 2013. If you want innovation, you have to invest in people. *Harvard Business Review Blog Network.* October. blogs.hbr.org/2013/10/if-you-want-innovation-invest-in-people/?utm_source=Socialflow&utm_medium=Tweet& utm_campaign=Socialflow (accessed October 25, 2013).

Merriam-Webster On-Line Dictionary. 2014. Empathy. http://merriam-webster.com/ dictionary/empathy (accessed April 4, 2014).

Mills-Scofield, Deborah. 2013. Control is for beginners. Harvard Business Review Blog Network. November. blogs.hbr.org/2013/11/control-is-for-beginners/ ?utm_source=Socialflow&utm_medium=Tweet&utm_campaign=Socialflow (accessed November 7, 2013).

Mumford, Michael D, Issac C Robledo, and Kimberly S Hester. 2011. Creativity, innovation, and leadership: Models and findings. In *The SAGE handbook of leadership*, ed. Alan Bryman, David Collinson, David Grint, Brad Jackson, and Mary Uhl-Bien, 405-421. Thousand Oaks: SAGE Publications.

Northouse, Peter G. 2007. *Leadership: Theory and practice.* 4th ed. Thousand Oaks: Sage Publications.

Paden, Terri. 2013. CSAF,CMSAF talk key issues with 15 WG Airmen. 15th Wing Public Affairs. August 21. www.pacaf.af.mil/news/story.asp?id=123360556 (accessed November 9, 2013).

Pink, Daniel H. 2009. *Drive: The suprising truth about what motivates us.* New York: Penguin Group.

Schien, Edgar H. 2010. *Organizational culture and leadership*. 4th ed. San Francisco: Josey-Bass.

Senge, Peter M. 1990. *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.

Shiv, Baba. 2013. How do you find break through ideas. Stanford Graduate School of Business. October. http://www.gsb.stanford.edu/news/headlines/baba-shiv-how-do-you-find-breakthrough-ideas?utm_source=twitter&utm_medium=social-media&utm_campaign=shiv-bre%E2%80%A6 (accessed November 7, 2013).

Tourish, Dennis. 2011. Leadership and cults. In *The SAGE handbook of leadership*, ed. Alan Bryman, David Collinson, Keith Grint, Brad Jackson, and Mary Uhl-Bien, 215-228. Thousand Oaks: SAGE Publications.